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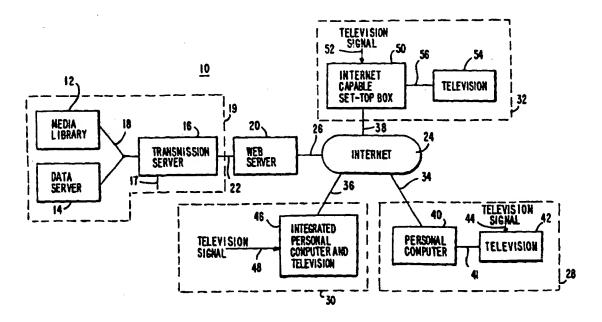
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(54) Title: INTERNET TELEVISION PROGRAM GUIDE SYSTEM



(57) Abstract

An Internet television program guide system is provided that allows a user at a multimedia system to access information related to television programs over an Internet communications link. The user can view television program guide listings and related video stills and video clips. The user can perform database searches on the program guide listings (e.g., to search for a particular type of television program). If desired, the user can select an option that directs the multimedia system to tune directly to a television channel for a selected program or to a related television program guide or movie guide service on a television channel. The user can order pay—per—view events using the system.

INTERNET TELEVISION PROGRAM GUIDE SYSTEM

Background of the Invention

This invention relates to the Internet, and more particularly, to techniques for providing television program guide information and services to a user over the Internet.

A large number of television channels are available over cable television systems and satellite television systems. Television viewers have traditionally had to consult preprinted television program listings to determine which programs were scheduled to be broadcast on a particular day. More recently, television-based program guides have been developed that allow television viewers to view television program listings directly on their television sets.

For example, the Prevue® channel is a scrolling television program listings service that a cable system operator may make available to subscribers over a dedicated cable channel. Viewers can tune to the appropriate television channel to view program listings for television program. that ar currently being broadcast and are scheduled to be broadcast in

- 3 -

It is therefore an object of the present invention to provide a television program guide system that provides television program listings from a server to a user's multimedia system over an Internet communications link.

It is a further object of the present invention to provide a television program guide system that allows users to click on text or still images to view promotional video clips, audio clips, interview segments, and other multimedia material related to a given television program.

Summary of the Invention

These and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an Internet television program guide system. A computer system having a media library and a data server is used to provide multimedia clips and related television program guide data. The multimedia material and program guide data are provided to a web server. The web server provides this information to the user's multimedia system via an Internet communications link.

The multimedia system has a processing unit

for receiving information from the Internet

communications link and processing such information

accordingly. The multimedia system also has a video

unit for receiving television signals. In a first

embodiment, the processing unit is based on a personal

computer running a standard web browser with plug-ins.

The video unit is based on a television. In a second

embodiment, the processing unit and video unit of the

location), the system benefits from using the established protocols and standards of the Internet.

In addition, because the Internet television program guide is provided as a web site having a number of linked web pages, features can be easily added or deleted from the service by the service provider, without directly affecting the hardware and software of the user.

Using a web site platform also allows a wide range of service options to be provided. In particular, numerous media formats (animation, full motion video, sound, still images, and text) are supported and may be interconnected using various embedded hypertext transfer protocol links.

Further features of the invention, its nature and various advantages will be more apparent from the accompanying drawings and the following detailed description of the preferred embodiments.

20 Brief Description of the Drawings

FIG. 1 is a system diagram showing a media library and data server interconnected with a web server and various multimedia systems.

FIG. 2 is a generalized diagram of a user's multimedia system.

FIG. 3 is a system diagram similar to that of FIG. 1 showing an arrangement in which the web server is located in a cable system headend.

FIG. 4 is a diagram of a home page for an 30 Internet television program guide.

FIG. 5 is a diagram of a map-based menu for identifying a geographical area of interest.

- 7 -

FIG. 20 is a web page containing television program guide listings organized by category.

FIG. 21 is a search page containing a box for entering search text and various search field options.

5 FIG. 22 is a television program guide listing page based on the results of a search.

FIG. 23. is a web page presenting program guide options related to promotional clips, interview segments, and pay-per-view and premium services.

10 FIG. 24 is a web page presenting various image stills that may be selected by the user when it is desired to view related video clips. —

FIG. 25 is a web page presenting user options regarding pay-per-view and premium services.

FIG. 26 is a web page containing television program listings for a selected pay-per-view channel.

FIG. 27 is a web page containing television program listings for a selected premium channel.

FIG. 28 is a web page providing information 20 regarding upcoming pay-per-view sporting and special events.

FIG. 29 is a web page containing still images corresponding to available interview segments.

FIG. 30 is a program information web page containing information on a program selected by the user and presenting related options.

FIG. 31 is a web page that allows a user to enter information for ordering a pay-per-view event.

FIG. 32 is a web page that provides a

30 showcase for advertisers.

- 9 -

desired. The television program information in data server 14 is primarily in non-video formats.

Media library 12 and data server 14 are interconnected with transmission server 16 via internal network 18. Media library 12, data server 14, network 18, and transmission server 16 make up computer system 19. Television program information may be stored on data server 14 in a relational database format and may be stored on transmission server 16 in an object-

- oriented database format. A building process implemented in the C** programming language can be used to periodically (e.g., once a day) build a temporary data set of television program information (e.g., a seven-day to one-month data set) for storage on
- transmission server 16. Transmission server 16 also receives information for the Internet television program guide service such as weather data, sports scores, etc., via data input 17.

Television program information and related

20 data may be transferred from transmission server 16 to
web server 20 via communications line 22.

Communications line 22 may be part of an internal
network or may be a standard dedicated communications
line. Web server 20 can be connected to the Internet

25 24 via communications link 26. Communications link 26
is preferably a telephone line or other suitable
Internet communications path.

If transmission server 16 and web server 20 are separate devices, as shown in FIG. 1, transmission server 16 can be used as a common data processing facility for other applications which use the type of television program data stored on transmission server

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- 11 -

Gateway 2000 Inc. of North Sioux City, South Dakota. Television signals are provided at input 48. Internet access is provided via Internet communications link 36.

Multimedia system 32 has an Internet capable set-top box 50. Set-top box 50 may use the TV OnLine® set-top box application software of World Gate Corporation, which may be implemented on set-top boxes such as the CFT-2200® of General Instrument Corporation of Hatboro, Pennsylvania and the 8600x® of Scientific

10 Atlanta of Atlanta, Georgia. Set-top box 50 receives television signals via input 52. Internet access is provided via Internet communications link 38. Video display signals containing television and Internet information are provided to television 54 by line 56.

During operation of system 10, certain data processing functions, such as user-initiated searches and sorts, are typically performed on web server 20. If desired, such functions can be performed on a suitable data processing component in multimedia 20 systems 28, 30, and 32.

Certain television guide functions require only that multimedia systems 28, 30, and 32 contain web browsing capabilities. Other functions require television tuning and video recording capabilities.

- 25 FIG. 2 shows a generalized multimedia system arrangement that is capable of supporting controlled television tuning and video recording, if desired. As shown in FIG. 2, multimedia system 58 has a processing unit 60, which preferably contains memory for storing instructions and a microprocessor for executing the
- instructions and a microprocessor for executing the instructions. Processing unit 60 accesses the Internet via Internet link 62. Video unit 64, which may be

may be contained within both a television component and a Videocassette recorder component in system 58).

Regardless of the specific configuration of the multimedia systems used in system 10, the user of 5 such a multimedia system has the capability to access television program guide information on web server 20. Many of the features of the Internet program guide service are available using multimedia systems with the capabilities of a modern personal computer (desktop or If it is desired to use certain program guide 10 features that rely upon controlling a tuner or recording unit, the multimedia system should also have the ability to tune to a desired television program from among the various television programs provided at inputs 44, 48, 52, and 74 and have the ability to record that program automatically, under the control of commands from processing unit 60. Additional features may also be implemented on multimedia system 58.

Another configuration that may be used for an Internet television program guide system is shown in FIG. 3. As shown in FIG. 3, Internet television program guide system has media library 80 and data server 82. Media library 80 contains television program clips, interviews, and reviews. The television program information stored in media library 80 is primarily video. Data server 82 contains databases of television program information. For example, data server 82 may have a database containing descriptions of videos in media library 80. Data server 82 may also have a databases containing information on program titles, pay-per-view events, and television program schedules. Data server 82 may have a cable sy tem

Television program information (including video clips and associated television program data) is transmitted from transmission server 84 to each cable system headend 88 via satellite uplink 90 and satellite 5 downlink 92. Each web server 86 uses the Internet TCP/IP protocol to make the television program information available to users at multimedia systems 94, 96, and 98 via respective communications links 100, 102, and 104. Communications links 100, 102, and 104 are Internet links formed from telephone lines, radiofrequency (RF) links, cable modem links, satellite dish downlinks, combinations of links such as these, or any other suitable Internet connection paths. Although illustrated as direct links between multimedia systems 94, 96, and 98 and web server 86, communications links 100, 102, and 104 may be Internet paths that pass through extensive portions of the Internet.

Multimedia system 94 has personal computer 106 and may have television 108. Television 108 20 receives television signals from input 110. Access to web server 86 is provided via Internet communications link 100.

Multimedia system 96 has an integrated personal computer and television 112, such as the 25 Gateway 2000 Destination PC-TV hybrid. Television signals are provided at input 114. Access to web server 86 is provided via Internet communications link 102.

Multimedia system 98 has an Internet capable set-top box 116, such as the TV OnLine® set-top box. Set-top box 116 receives television signals via input 118. Access to web server 86 is provided via Internet

provided as web browser plug-ins (i.e., special software modules designed to enhance the features of a web browser application). A suitable video player plug-in for MOV files is the Quicktime® application of Apple Computer, Inc. of Cupertino, California. AVI and MPG (or MPEG -- Motion Picture Expert Group) files may be played using the ActiveMovie® application of Microsoft Corporation.

An illustrative welcome page 124 for the 10 television program guide service of the present invention is shown in FIG. 4. (A site map is shown in FIG. 34.) Web browser function keys 126-help the user at multimedia system 58 to navigate through web pages of material such as welcome page 124. Users may also 15 navigate by clicking on an image or an element of highlighted text with cursor 142, which may be controlled by a pointing device such as a mouse or trackball. Other arrangements for selecting links may be used if supported by the user interface 76 that is 20 provided in multimedia system 58. Web browser function keys 126 include back and forward keys that allow the user to navigate backward and forward along a browsing trail. Web browser function keys 126 are not shown in the other FIGS., but are shown in FIG. 4 to illustrate the types of function keys that are available with a standard web browser.

Welcome page 124 may contain identifying logos 128 (which may be, for example, United States trademarks). Identifying logos 128 allow a user to quickly associate a service provider, such as the assignee of the present invention, Prevue Networks, Inc. of Tulsa, Oklahoma, with the Internet television

- 19 -

If the user desires to select go local option 1367 the user may be prompted to enter a zip code for the local area of interest in box 144. If service is available, the program guide system links the user to 5 an appropriate the local system operator's web site based on the zip code information. If desired, the user can select a local area by entering information such as a cable system operator's name, the name of a city, international country and city information, etc. 10 Another way in which the user may select a local service area of interest is using a map-based graphical user interface. As shown in FIG. 5, the-user is presented with United States map 146. The user selects a state of interest using cursor 142. If necessary, ... 15 additional maps containing greater levels of detail are provided, each allowing the user to make further geographical selections. Ultimately, the user is presented with a local map (e.g., a map that allows the user to select from several available cable system 20 operators). In map 148 of FIG. 6, the user can select between three available cable system operator regions: region 1, region 2, and region 3.

If no local service is available, the user may be provided with a web page such as no service page 150 of FIG. 7, in which the user is informed that local service is not presently available in the area selected by the user. No service page 150 may provide the user with an opportunity to submit the user's e-mail address, cable provider information, local zip code information, and comments. Information provided by the user can be used by the operator of the television

- 21 -

Upon completing registration page 162, the user is presented with local cable site page 170 of FIG. 10, which is customized to reflect the local geographic area or city selected by the user. Local cable site page 170 may contain a welcome message 172 that is customized to reflect the name of the local cable system operator.

A number of options 174 may be presented as hypertext links to associated web pages. An image 175 is displayed that changes as the user places cursor 142 10 on top of each option 174. For example, the image 175 of FIG. 10 is presented when the user positions cursor 142 over program guide option 190. Different images are displayed as cursor 142 passes over each option 15 The images 175 to be displayed are stored as bitmap images in processing unit 60 of multimedia system 58 (FIG. 2). This technique of presenting context-sensitive images to illustrate the current position of the cursor over hypertext link options is 20 preferably used throughout the Internet television program guide service.

Various web pages may be displayed depending on which option 174 is selected by the user. For example, selecting community events option 176 presents the user with community events page 178 (FIG. 11), which contains information on local upcoming community events. If desired, the listed community events may be specific to the type of service to which the user subscribes (e.g., cable or satellite).

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30 Selecting cable feedback option 180 presents the user with cable feedback page 182 (FIG. 12), which

user with the opportunity to select additional cities for which weather information is desired.

Program guide option 190 allows the user to access television program listings that can be organized by time, channel, and category and can be searched. Selecting program guide option 190 takes the user to program guide menu page 194 (FIG. 15). Movie guide option 192 allows the user to access channel listings for premium and pay-per-view channels, interviews, and various promotional media. Selecting movie guide option 192 takes the user to movie guide

The user may reach program guide menu page
194 (FIG. 15) from go national option 138 (FIGS. 4 and 5)
15 8) or go satellite option 140 (FIGS. 4 and 8). If the user selected go local option 136 (FIG. 4) and successfully completed registration page 162 (FIG. 9), the user may reach program guide menu page 194 (FIG. 15) by selecting program guide option 190 on local cable site page 170 (FIG. 10). The user may also reach program guide menu page 194 (FIG. 15) via select a city option 154. Each of these paths to program guide menu page 194 requires that slightly different user

menu page 196 (FIG. 23).

selections be made.

Go local option 136 (FIG. 4) requires that a user specify a particular local region (or cable system operator) of interest to reach local cable site page 170 (FIG. 10). To reach program guide menu page 194 (FIG. 15) from local cable site page 170, the user selects program guide option 190.

Go national option 138 (FIGS. 4 and 8) requires that a user relect a desired time zone (e.g.,

- 25 -

Dividing program guide menu page 194 in this way allows system resources to be used more efficiently than would otherwise be possible, because the common material in top web page 198 can be used for more than one local cable system.

If desired, television channel options 206 and 208 may be provided that allow the user to easily access related television channel program services.

When the user selects options 206 or 208, processing unit 60 (FIG. 2) sends control commands to video unit 68 that direct tuner 70 of video unit 64 to tune to a television channel on which the desired program service is being broadcast.

For example, if the user wishes to tune video unit 64 to the Prevue® channel, the user may click on program guide television channel option 206. When program guide television channel option 206 is selected, processing unit 60 directs video unit 64 to select the appropriate television signal from television signal input 74 so that the Prevue® channel is displayed on monitor 72. The Prevue® channel is an example of a type of program guide service that displays a scrolling list of television program titles with a concurrent display of promotional videos and advertisements.

If the user wishes to tune video unit 64 to the Sneak Prevue® channel, the user may click on movie guide television channel option 208. When movie guide television channel option 208 is selected, processing unit 60 directs video unit 64 to select the appropriate television signal from television signal input 74 so that the Eneak Prevue® channel is displayed or monitor

afternoon, or prime time). If desired, the closest time slot to the current time may be displayed. Program listings 220 typically contain information for about two hours of programing.

cursors 222 and 224 are used to navigate to earlier or later time periods, respectively. Web browser cursors 226 and 228 allow the user to scroll through the program listings. The user may also navigate the program listings with time navigation

10 buttons 230. For example, if the user would like to view program listings that begin in the morning, the user clicks on the morning navigation button 230. If the user would like to view program listings for programs currently being broadcast, the user may click on the current navigation button 230. Program listings for different days in the month may be viewed by selecting the appropriate day from calendar buttons 232.

The user can chose between various available
view options by selecting the appropriate time,
channel, category, or search button from among view
buttons 234. View buttons 234 take the user to the
same web pages that are presented when the
corresponding options 202 of FIG. 15 are selected. For
example, by channel option 212 and channel view button
234 are both linked to by channel page 242 (FIG. 17).

Another component of by time page 218 and various other web pages provided by the present system is program information box 236. The contents of program information box 236 changes dynamically, depending on which program title in program listings 220 is selected. For example, the user as clicked on

- 29 -

may be arranged in channel number order and may contain associated icons 246 for certain channels. A user can click on each individual channel 248 in channel list 244 to obtain a list of program information based on the selected channel. A user can also click on a graphic or text link to a listed network's web site to be hyperlinked to that site.

When a channel 248 is selected, the user is presented with channel program list page 250, as shown in FIG. 18. The selected channel in the example of FIG. 18 is channel 2. In channel program list page 250, program listings 252 for the selected channel may be arranged in time order, beginning with the current time. If programs in program listings 252 extend into the next day, the programs may be separated by date separation bar 254. Title bar 256 contains information identifying the currently selected channel.

By category page 258 of FIG. 19 is presented when the user selects by category option 214 from
20 program guide menu page 194 (FIG. 15) or when the user clicks on a category view button, such as category view button 234 of by time page 218 (FIG. 16). By category page 258 contains category list 260, which may be presented in the form of category icons 262. A user
25 can click an individual category icon 262 in category list 260 to obtain a list of program information based on the selected category.

When a category is selected, the user is presented with category program list page 264, as shown in FIG. 20. In category program list page 264, program listings 266 may be arranged in time and channel order, beginning with the current time and date. Program

- 31 -

The user may reach movie guide menu page 196 (FIG. 23) from go national option 138 (FIGS. 4 and 8) or go satellite option 140 (FIGS. 4 and 8). If the user selects go local option 136 (FIG. 4) and 5 successfully completes registration page 162 (FIG. 9), the user may reach movie guide menu page 196 (FIG. 23) by selecting movie guide option 192 on local cable site page 170 (FIG. 10). Each of these paths to movie guide menu page 196 requires that slightly different user selections be made.

Go local option 136 (FIG. 4) requires that a user specify a particular local region (or cable system operator) of interest to reach local cable site page 170 (FIG. 10). To reach movie guide menu page 196 (FIG. 23) from local cable site page 170, the user selects movie guide option 192.

Go national option 138 (FIGS. 4 and 8)
requires that a user select a desired time zone (e.g.,
eastern, central, mountain, or pacific). To reach
20 movie guide menu page 196 from welcome page 124 (FIG.
4) or pick again page 152 (FIG. 8), the user selects
movie guide option 290.

Go satellite option 140 (FIGS. 4 and 8) requires that the user select a desired satellite provider 286. To reach movie guide menu page 196 from welcome page 124 (FIG. 4) or pick again page 152 (FIG. 8), the user selects movie guide option 292.

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Regardless of which option is used to reach movie guide menu page 196, information is preferably retained by the system 10 or 78 that indicates which selections have been made by the user. Retaining this information allows subsequently displayed program

user clicks on pay-per-view link 312 or pay-per-view link 314, the user is taken to pay-per view page 316 (FIG. 26), which provides the user with pay-per-view program listings for the selected program.

When the user selects movie cruiser option 296, the user is presented with movie cruiser page 318, as shown in FIG. 25. Movie cruiser page 318 lists the pay-per-view and premium channels that are available to the user (based on previous selections). In particular, movie cruiser page 318 contains pay-per-view channel options 320 and premium channel options

322.

options 320, the user is taken to pay-per-view page
316, as shown in FIG. 26. Pay-per-view page 316
contains program listings 324 for pay-per-view events.
Multiple pay-per-view programs may be simultaneously
listed in a grid format or may be listed as shown in
FIG. 26 for a selected pay-per-view channel (i.e.,
channel 35). As with several other pages, page 316
contains program information box 325, which contains
program information when a program from program
listings 324 has been selected by the user. Clicking
on box 325 (or a closer look icon in box 325) takes the
user to program information page 240 (FIG. 30).

options 322 on page 318 (FIG. 25), the user is taken to premium services page 326, as shown in FIG. 27.

Premium services page 326 contains program listings 328 for premium events. Multiple premium service programs may be simultaneously listed in a grid format or a single program may be listed as shown in FIG. 27 for a

- 35 -

movies and other programs currently available to the user. The determination of which interview images 340 are to be made available on interview page 338 may be based on a calculation of the most frequently scheduled upcoming programs in a predetermined time period (e.g., in the upcoming week). If desired, interviews corresponding to programs not currently available to the user may also be provided. The user may select a given interview by clicking on one of images 340. The user is then taken to program information page 240 (FIG. 30).

As shown in FIG. 30, program information page 240 contains detailed information on a selected program (e.g., the movie Birdcage). Program information page 15 240 preferably contains image 342, which may initially be presented as a still image of the program title (e.g., from a JPEG or GIF file). When a user clicks on image 342, an associated video clip is presented. Program information page 240 also contains title 344, 20 actor information 346, and program description 348. Additional information may include content information 350 and genre information 352. If desired, information may be provided on the director, year of release, and other relevant items. Additional actor information may be supplied (e.g., in the form of biographical 25 information and related video clips accessed by clicking on actors 346).

Interview icon 354, commentary icon 356, and promotional clip icon 358 represent available services.

The user can view video clips of interviews on the selected program (i.e., the movie Birdcage) by clicking on the appropriate file- pe option associated with

- 37 -

Program information page 240 contains program listings 366, which provide program title, channel, and time and date information for the selected program. In the example shown in FIG. 30, the movie Birdcage is appearing on channel 35 (a pay-per-view channel) on three days in the next weekly period. When the user clicks on a pay-per-view entry in program listings 366, the user is taken to order page 336 (FIG. 31).

As shown in FIG. 31, order page 336 contains instructions 368 on how to order a pay-per-view event. Order page 336 also contains telephone number query box 370 and personal identification number box 372. The user may place an order for a pay-per-view event by clicking on place order button 374. Information entered by the user into boxes 370 and 372 is used to verify the user's identity and account status. Once the user's information has been verified, the selected pay-per-view event may be delivered to the user's multimedia system.

The way in which pay-per-view event orders are processed depends on the particular hardware used to deliver services to the user. Order and account verification information is generally electronically submitted to the headend cable system operator or a third party order fulfillment processor linked to the headend system. Equipment in the headend processes the order automatically and arranges for the delivery of the pay-per-view event to the user. Typically, the headend equipment directs equipment (such as a set-top box or similar integrated component) in the user's multimedia system to display the ordered event.

broadcast time) by automatically tuning to the desired channel, by displaying a reminder message, or by issuing an audible reminder. Reminder messages may also be generated by web server 20 or 86 and transmitted to multimedia system 58 by e-mail.

If desired, these selectable recording and reminder features can be incorporated into other pages, such as program information page 240, one of the pages containing television program listings, or a page presented to the user after clicking on place order button 374.

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When a user clicks on an advertisement (typically an image) in one of the web pages associated with the program guide service, the user may be taken directly to a more detailed advertisement page.

Alternatively, the user may be taken to advertiser showcase page 376, as shown in FIG. 32. Advertiser showcase page 376 contains clickable images, such as images 378, 380, and 382, which are linked to more detailed advertising pages. Advertiser showcase page 376 also may contain a advertiser logo image, such as image 390. Text bar 392 contains clickable text fields that duplicate the selections available by clicking on images.

The advertiser logo image in advertiser showcase page 376 may be linked to the web site of the advertiser. For example, image 390 may be linked to a web site for UPN, so that if the user clicks on image 390, the user will be taken to the UPN web site.

378, 380, or 382 in advertiser showcase page 376, the user is presented with advertisement page 394, as shown

local cable site page 170. From local cable site page 170, the user can view community events page 178 by selecting the community events option. By selecting the cable feedback option, the cable operator option, or the local weather option, the user can access cable feedback page 182, cable operator page 186, or local weather page 188.

If the user selects the go national option on welcome page 124, the user is taken to program guide 10 menu page 194 or movie guide menu page 196, depending on whether the user selected the program guide or movie quide option. Similarly, if the user selects the go satellite option on welcome page 124, the user is taken to program guide menu page 194 or movie guide menu page 15 196, depending on whether the user selected the program guide or movie guide option. The user can also reach program guide menu page 194 or movie guide menu page 196 from pick again page 152 or local cable site page 170. If the user reaches program guide menu page 194 20 from either pick again page 152 or local cable site page 170, the local area of interest to the user is retained by the system, so that subsequently displayed program guide listings can be customized to the user's local area.

When the user is at program guide menu page 194, selecting the program guide channel option tunes the system directly to program guide television channel 400. Similarly, selecting the movie guide channel option tunes the system to movie guide television channel 402. Selecting the time option from program guide menu page 194 takes the user to by time page 218. If program is selected that is currently being

view a promotional video clip for the hot pick. If the user selects the main event option from movie guide menu page 196, the user is presented with main event page 332. When the user selects a given event from main events page 332, the user is taken to program information page 240 to view information on that event. Alternatively, the user may be taken to order page 316 to place an order for the event.

selecting the movie cruiser option from movie

guide menu page 196 presents the user with movie

cruiser page 318. The user can view pay-per-view page

316 by selecting the pay-per-view option. The user can

view premium services page 326 by selecting the premium

option. Programs may be selected by the user from

either pay-per-view page 316 or premium services page

326. In either case, the user is taken to program

information page 240 to view additional information on

the selected program.

Program information page 240 allows the user
to view multimedia material on a given program,
interview, event, etc. The content of program
information page 240 depends on the path taken to reach
program information page 240 and the options selected
by the user. Program information page 240 contains
options that allow the user to select a program to
view. When the user makes such a program selection,
the user is presented with order page 336.

The foregoing is merely illustrative of the principles of this invention and various modifications can be made by those skilled in the art without departing from the scope and spirit of the invention.

- 6. The system defined in claim 1 further comprising means for providing a go satellite option which the user selects to receive information based on television listings for satellite coverage.
- 7. The system defined in claim 1 further comprising means for providing a go local option which the user selects to receive information based on local television listings.
- 8. The system defined in claim 7 further comprising means for selecting a locality for the local television listings.
- 9. The system defined in claim 8 wherein the means for selecting a locality comprises means for accepting a zip code from which the locality is determined.
- 10. The system defined in claim 8 wherein the means for selecting a locality comprises means for selecting a local region from a map.
- 11. The system defined in claim 8 further comprising means for presenting a pick again web page when television program listings are not available for the selected locality.
- 12. The system defined in claim 1 further comprising means for presenting web pages containing advertising images that the user selects.

- 47 -

means for providing a direct tune option when a selected program is currently being broadcast; and

means for tuning the multimedia system to the television channel for the selected program when the user selects the direct tune option.

- 18. The system defined in claim 1 further comprising means for providing a selectable option to arrange the television program listings by time.
- 19. The system defined in claim 1 further comprising means for providing a selectable option to arrange the television program listings by channel.
- 20. The system defined in claim 1 further comprising means for providing a selectable option to arrange the television program listings by category.
- 21. The system defined in claim 1 further comprising means for searching the television program listings.
- 22. The system defined in claim 21 further comprising means for searching the television program listings by title.
- 23. The system defined in claim 21 further comprising means for searching the television program listings by actor.

containing selectable pay-per-view channels and premium channels.

- 32. The system define in claim 31 further comprising means for providing a pay-per-view web page containing program listings for upcoming pay-per-view events for a pay-per-view channel selected by the user.
- 33. The system defined in claim 31 further comprising means for providing a premium services web page containing program listings for upcoming premium programs for a premium channel selected by the user.
- 34. The system defined in claim 1 further comprising means for providing an order web page.
- 35. The system defined in claim 1 further comprising means for providing a customization web page.
- 36. The system defined in claim 1 further comprising means for providing a program information web page.
- 37. The system defined in claim 36 wherein the program information web page is customized to reflect information for a television program selected by the user.
- 38. The system defined in claim 1 wherein the computer system comprises a media library.

- 51 -

- 43. The method defined in claim 42 wherein the step of providing multimedia material further comprises the step of providing promotional video clips to the web server with the computer system.
- 44. The method defined in claim 42 wherein the step of providing multimedia material further comprises the step of providing interview video segments to the web server with the computer system.
- 45. The method defined in claim 41 further comprising the step of providing a go national option which the user selects to receive information based on national television listings.
- 46. The method defined in claim 41 further comprising the step of providing a go satellite option which the user selects to receive information based on television listings for satellite coverage.
- 47. The method defined in claim 41 further comprising the step of providing a go local option which the user selects to receive information based on local television listings.
- 48. The method defined in claim 47 further comprising the step of selecting a locality for the local television listings.
- 49. The method defined in claim 48 wherein the step of selecting a locality comprises the step of

PCT/US97/22753

presenting a movie guide menu web page when the user selects the movie guide option.

WO 98/26584

56. The method defined in claim 41 further comprising the steps of:

providing a guide television channel option; and

tuning the multimedia system to a guide television channel when the user selects the guide option.

57. The method defined in claim 41 further comprising the steps of:

providing a direct tune option when a selected program is currently being broadcast; and tuning the multimedia system to the television channel for the selected program when the user selects the direct tune option.

- 58. The method defined in claim 41 further comprising the step of providing a selectable option to arrange the television program listings by time.
- 59. The method defined in claim 41 further comprising the step of providing a selectable option to arrange the television program listings by channel.
- 60. The method defined in claim 41 further comprising the step of providing a selectable option to arrange the television program listings by category.

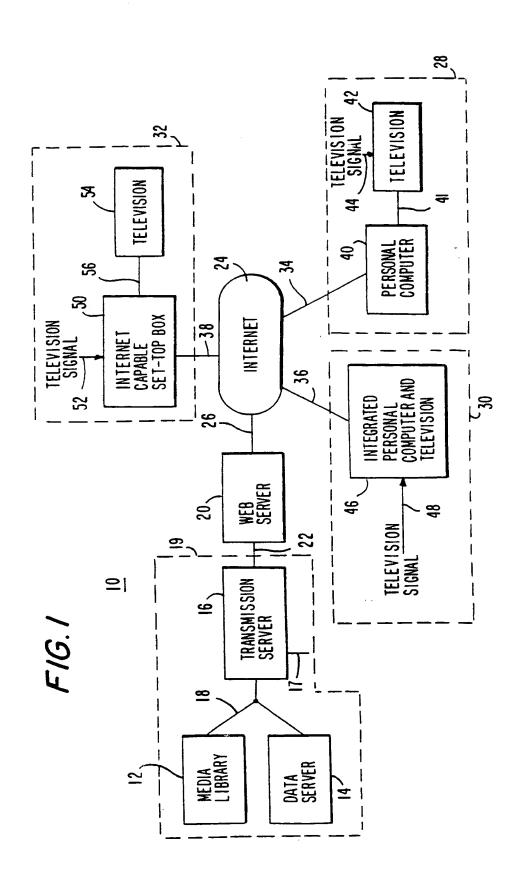
- 55 -

- 69. The method defined in claim 41 further comprising the step of displaying promotional media clips selected by the user.
- 70. The method defined in claim 69 further comprising the step of providing a hot picks web page containing selectable hot picks images for promotional media clips that are available.
- 71. The method defined in claim 41 further comprising the step of providing a movie cruiser web page containing selectable pay-per-view channels and premium channels.
- 72. The method define in claim 71 further comprising the step of providing a pay-per-view web page containing program listings for upcoming pay-per-view events for a pay-per-view channel selected by the user.

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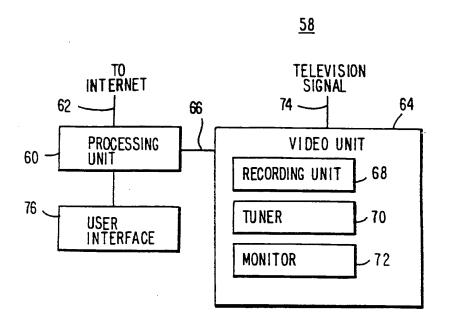
- 73. The method defined in claim 71 further comprising the step of providing a premium services web page containing program listings for upcoming premium programs for a premium channel selected by the user.
- 74. The method defined in claim 41 further comprising the step of providing an order web page.
- 75. The method defined in claim 41 further comprising the step of providing a customization web page.

- 4.

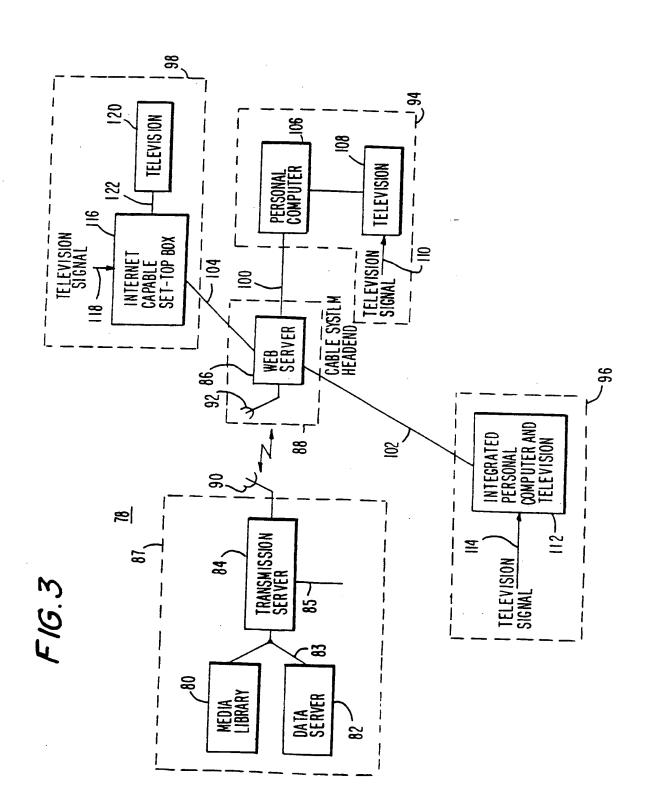


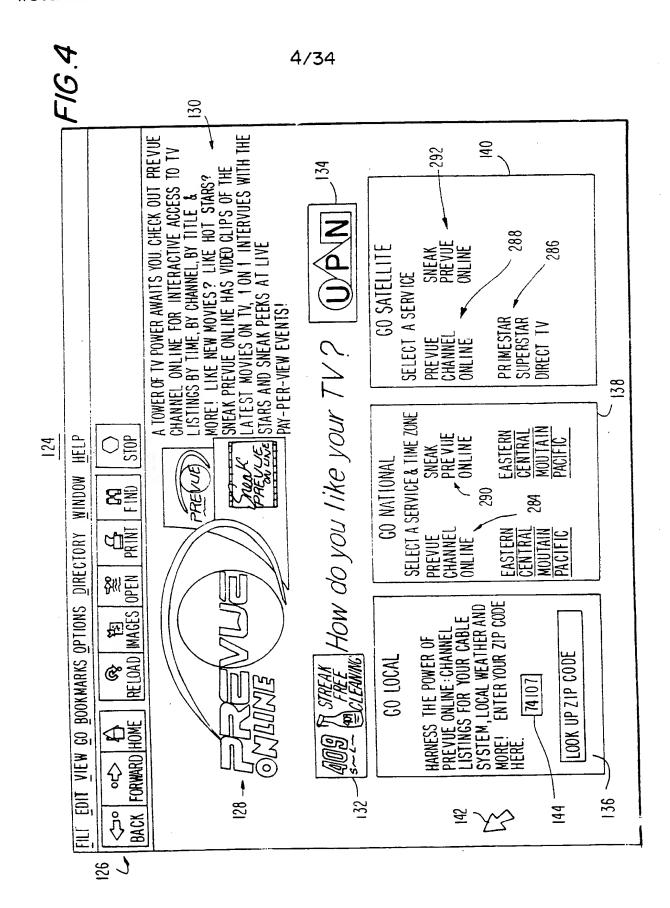
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FIG. 2

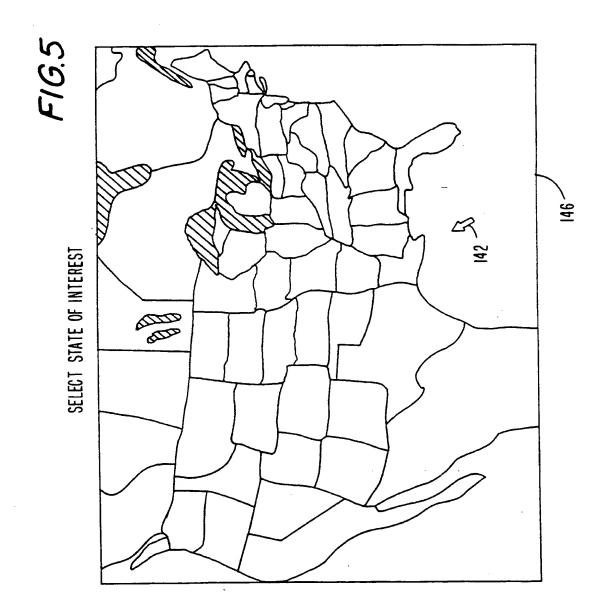


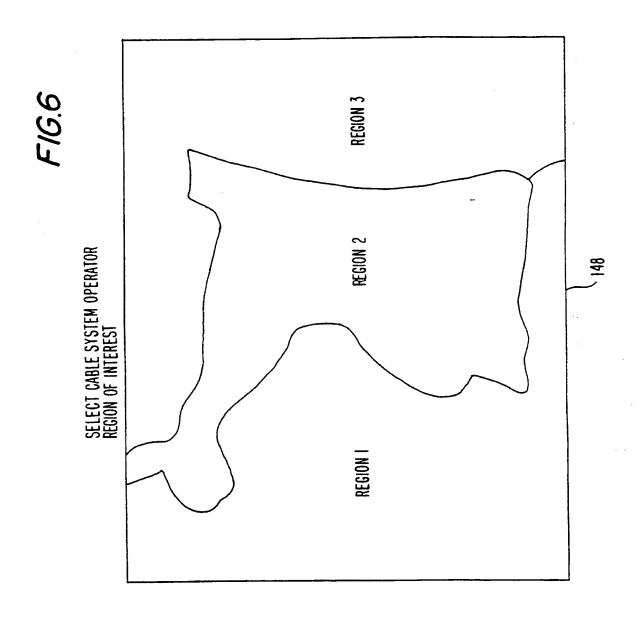
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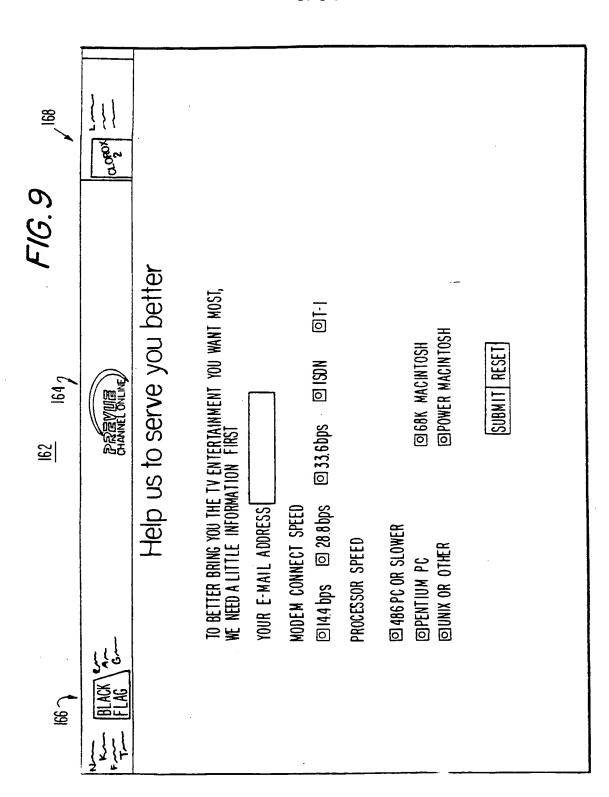
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	CLORON	R CABLE COMPANY R NATIONAL LISTING LEASE FILL OUT THE	
		IN YOUR AREA. Prevue Channel. You Sal Listings. We offei As fast as we can. P	SUBMIT RESET FORM
2	PREVIUE (CHANNEL ONLINE)	SORRY, LOCAL LISTINGS ARE NOT CURRENTLY AVAILABLE IN YOUR AREA REVUE ONLINE ARE A SEPARATE SERVICE FROM THE PREVUE CHANNET TO THIS SERVICE IN ORDER FOR YOU TO GET TO LOCAL LISTINGS. WE'LL COVERED, AND WE'RE CONTACTING CABLE SYSTEMS AS FAST AS WE TO YOUR TO CABLE COMPANY. THANKS FOR YOUR SUPPORT!	SOF
	₽	OCAL LISTINGS ARE NO ONLINE ARE A SEPARA IS SERVICE IN ORDER RED, AND WE'RE CONTA R TO CABLE COMPANY.	ESS CODE CODE CODE CODE CODE CODE CODE CODE
	BLACK C	SORRY, LOCAL LISTINGS ARE NOT CURRENTLY AVAILABLE IN YOUR AREA LOCAL LISTINGS ON PREVUE ONLINE ARE A SEPARATE SERVICE FROM THE PREVUE CHANNEL. YOUR CABLE COMPANY WILL NEED TO SUBSCRIBE TO THIS SERVICE IN ORDER FOR YOU TO GET TO LOCAL LISTINGS. WE OFFER NATIONAL LISTINGS FOR THOSE AREAS NOT YET COVERED, AND WE'RE CONTACTING CABLE SYSTEMS AS FAST AS WE CAN PLEASE FILL OUT THE FORM BELOW TO FORWARD TO YOUR TO CABLE COMPANY. THANKS FOR YOUR SUPPORT!	YOUR E-MAIL ADDRESS YOUR CABLE PROVIDER YOUR ZIP CODE COMMENTS
	13/4	LOCAL WILL NEEL FOR THOSE FORM BELG	

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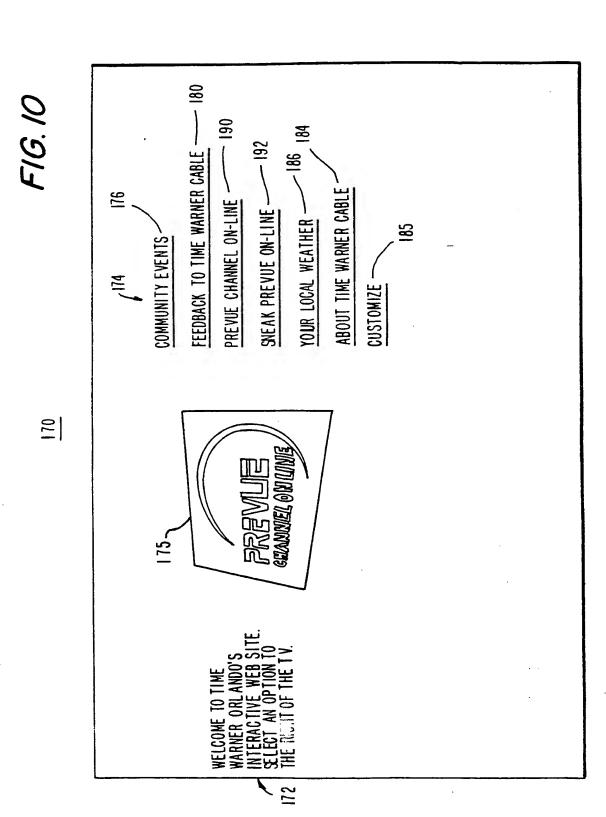
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292 C 140 **60 SATELLIT** SELECT A SERVICE 286 PRIMESTAR Superstar Direct tv 1 PREVUE CHANNEL ONLINE SELECT A SERVICE & TIME ZONE Please pick again, Can't go local? 136 GO NATIONAL EASTERN CENTRAL PREVUE CHANNEL ONLINE TO SEE WHAT PREVUE ONLINE COULD OFFER IN YOUR CABLE AREA, CHECK OUT ONE OF THESE SITES SELECT A CITY SUBMIT 160 54

152

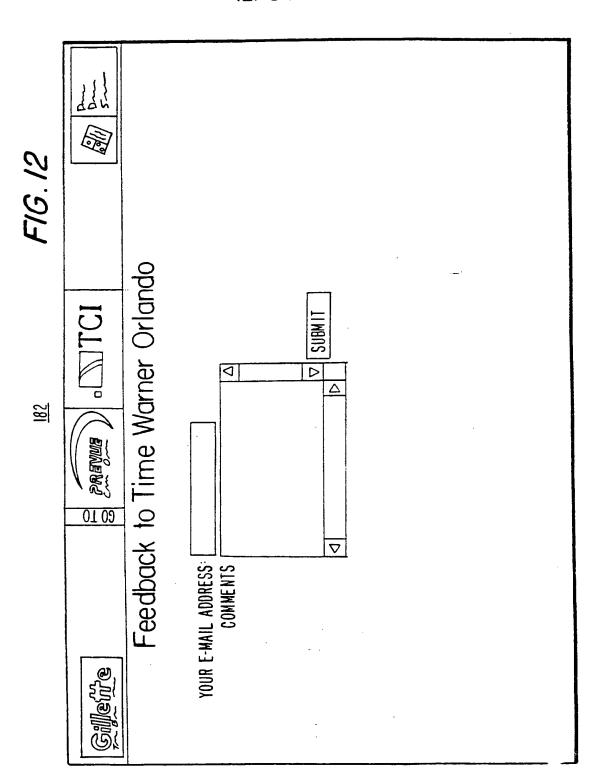


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Community Events	' Events	
	DECEMBER 6, 1996	
-JAZZFEST UNDER THE STARS-ENJOY FREE ENTERTAINMENT AT SPONSORED BY STATION KIFM COO	-JAZZFEST UNDER THE STARS- ENJOY FREE ENTERTAINMENT AT HOSPITALITY POINT ARRIVE EARLY FOR THE BEST SEATS. SESSION BEGINS AT 8PM. SPONSORED BY STATION KIFM GOOL JAZZ.	BEGINS AT 8PM.
	DECEMBER 1 1, 1996	
COMMUNITY CENTER OF EL CAJON. COMMUNITY WATCH GROUP MEETII	OF EL CAJON. Group meeting, room 16 new member sign-up wed.11@6:00Pm.	

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F16.13

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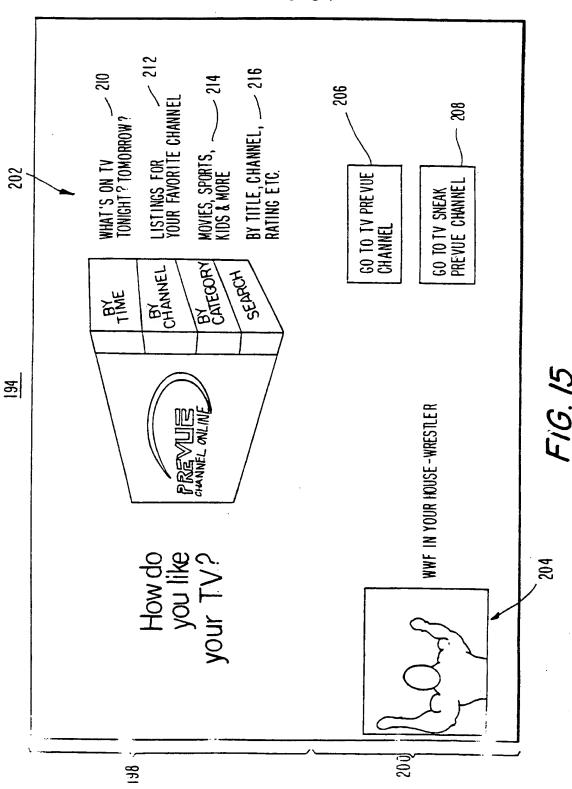
AS A LEADER IN THE COMMUNICATIONS INDUSTRY, WE ARE EXCITED TO PROVIDE ONE MORE AVENUE OF QUALITY INFORMATION AND ENTERTAINMENT. THIS SITE IS UPDATED ON REGULAR BASIS, SO KEEP CHECKING BACK TO GET THE LATEST ABOUT COMMUNITY EVENTS, LOCAL WEATHER AND PROGRAMMING INFORMATION. CLICK HERE FOR THIS WEEK'S TECH REPORT-"CONNECTING A SECOND TV TO CABLE" Stay Connected with TCI Greeley OT OS SERVING 187

F1G. 14

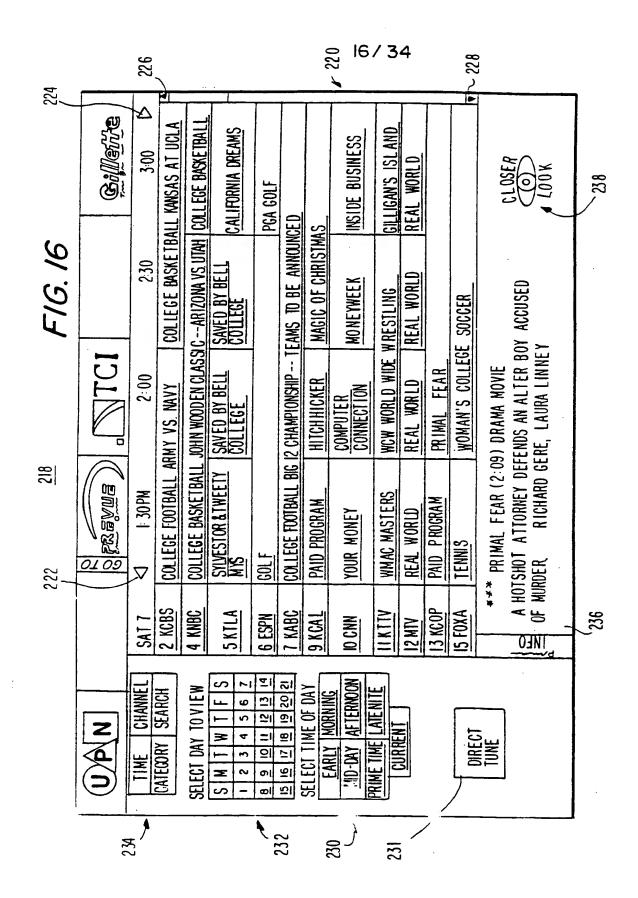
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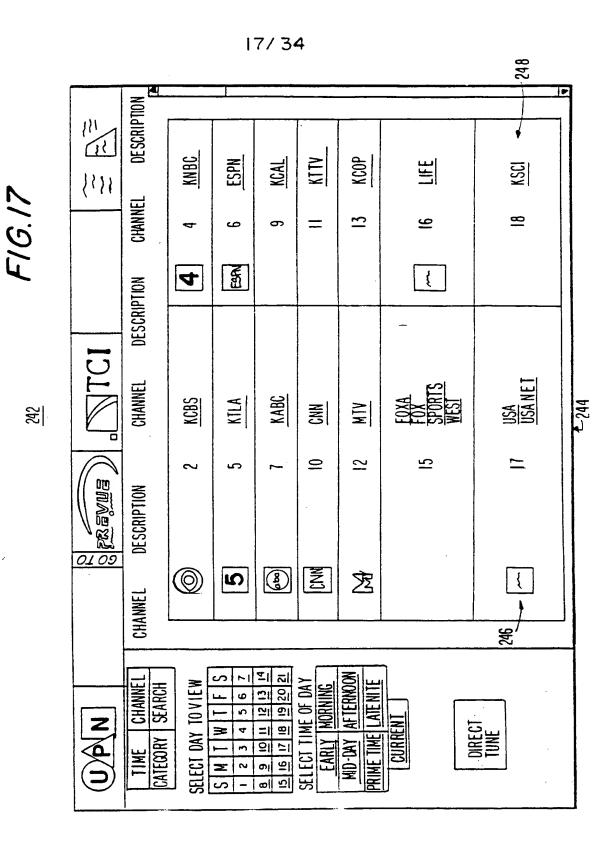
IHU THUNDERSTORMS LIKELY, OCCASIONALLY HEAVY. LOWS IN MID-30s. 33°F WED LOCAL WEATHER FORECAST FOR TULSA, OK THERE'S ONLY ONE MATCH ONE MATCHLIGHT! 32°F MON 30°F TONIGHT 01 09



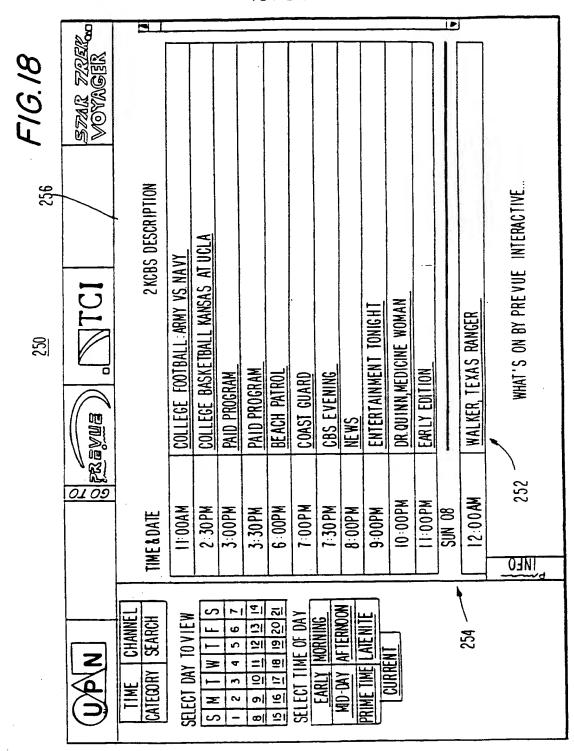


WO 98/26584

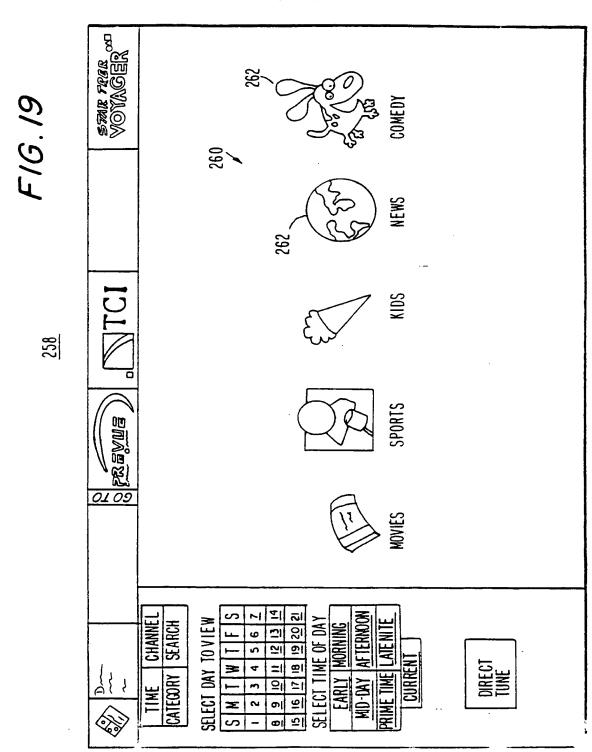




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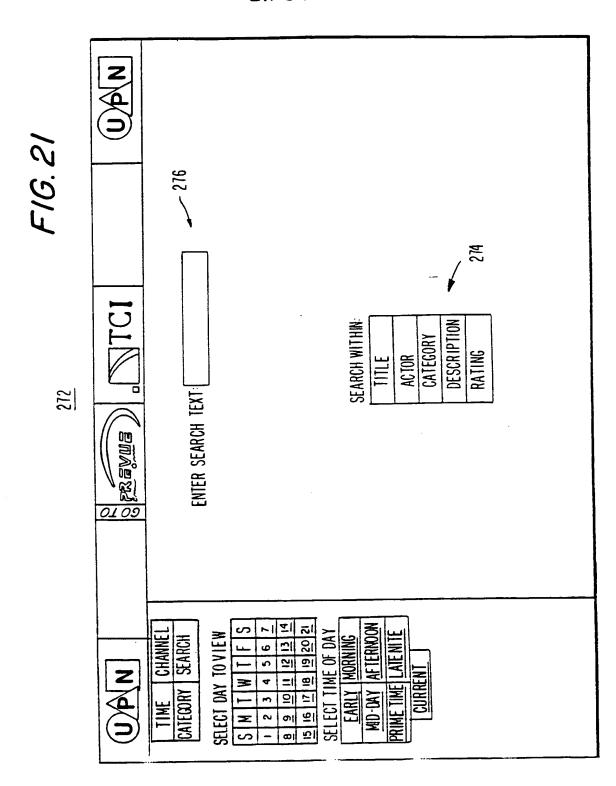
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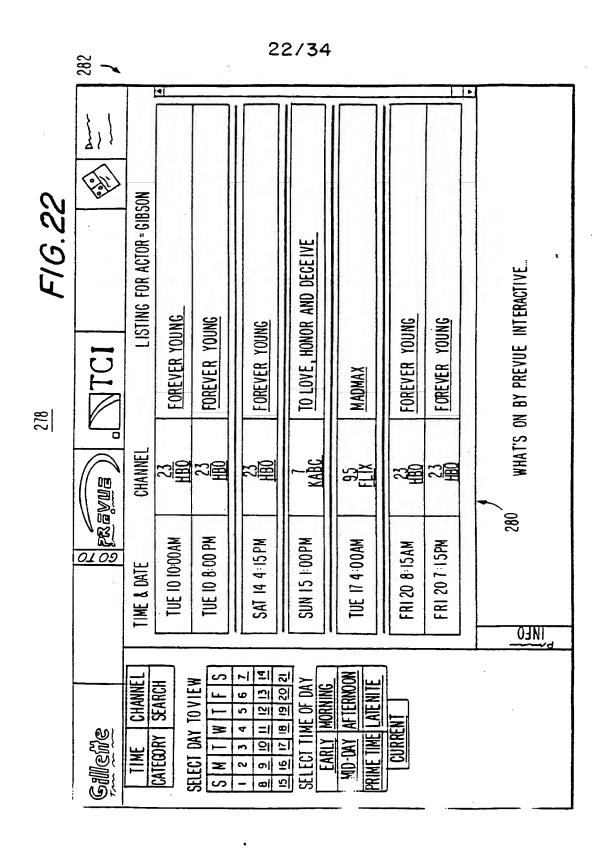


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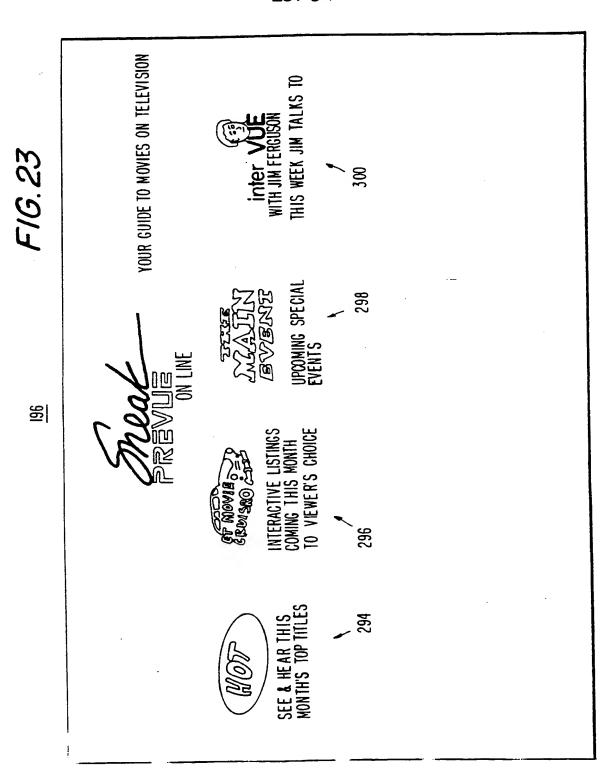
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F16.20	TCI TY	L ISTING FOR GENRE-MOVIE	LAND OF THE PHARAOHS	THE CRAFT	IN THE GOOD OLD SUMMERTIME	SEX AND THE SINGLE GIRL	MAD LOVE	MOTHER JUGS & SPEED	EROTIC PRINCESS	BABETTES FEAST	THE BIRDCAGE	WHAT'S ON BY PREVUE INTERACTIVE
264		CHANNEL	21 AMC	36 REO	96 96 96	ENCORE	SHOW	85 <u>7</u>	98 SPICE	26 TMC	35 RF0	
	S FREVILE	TIME & DATE	SAT 07 12:00PM	SAT 07 12:00PM	SAT 07 12:00PM	SAT 07 12:00PM	SAT 07 12:25PM	SAT 07 12:30 PM	SAT 07 12:30PM	SAT 07 1:00PM	SAT 07 1:00PM	INFO
		TIME CHANNEL		SMTWTFS	2 3 4 5 6 7 8 9 10 11 12 13 14	15 16 17 18 19 20 21 CELECT THE OF DAY	EARLY MORNING	MID-DAY. AFTERNOON PRIME TIME LATENITE	CURRENT			

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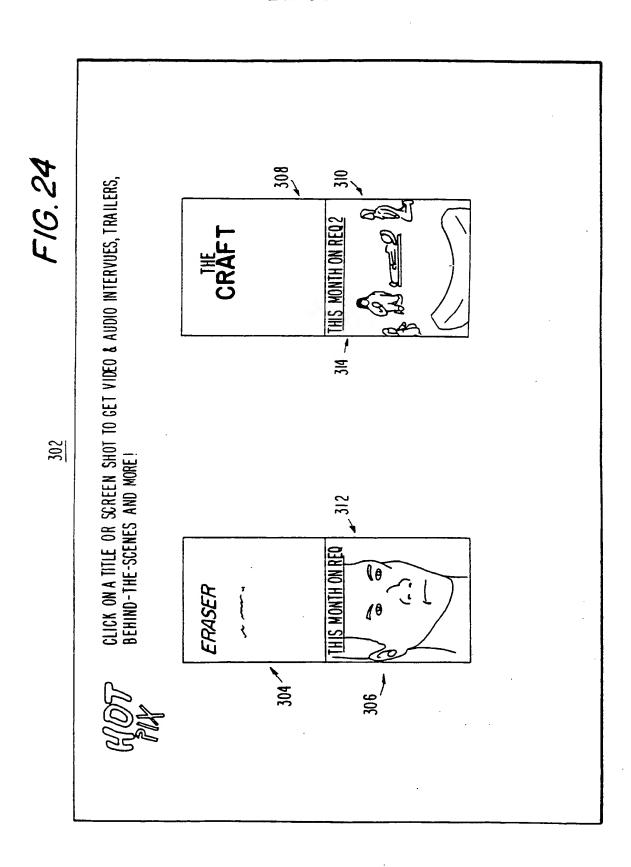
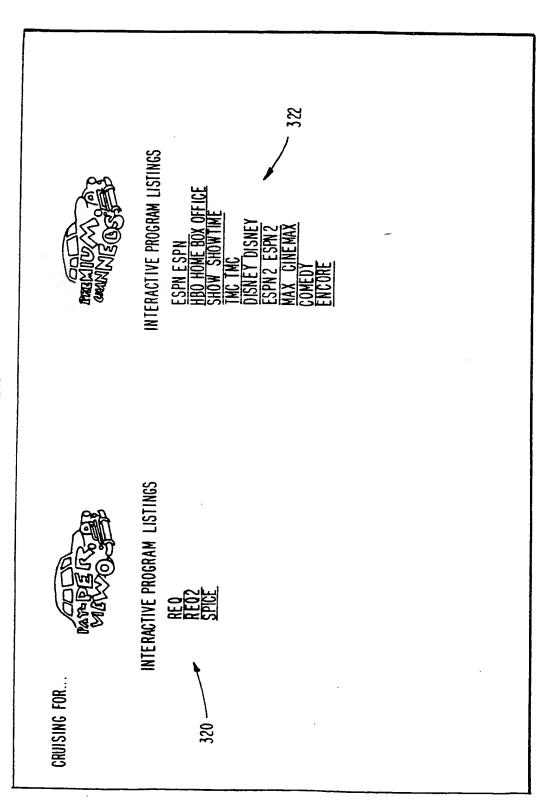
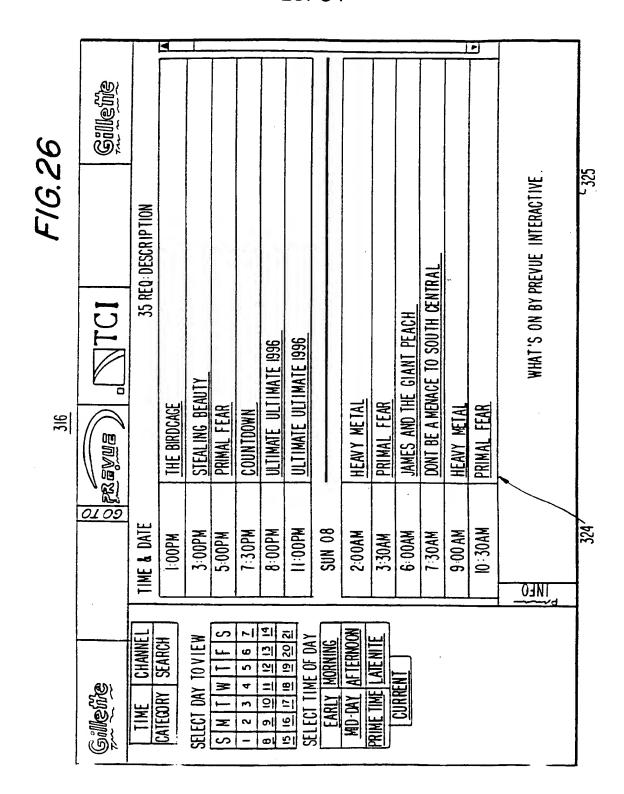


FIG 25

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26/34

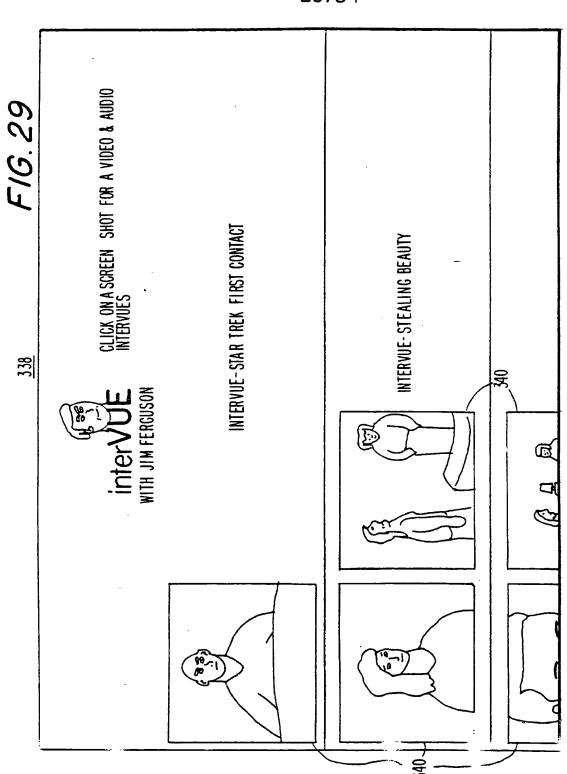


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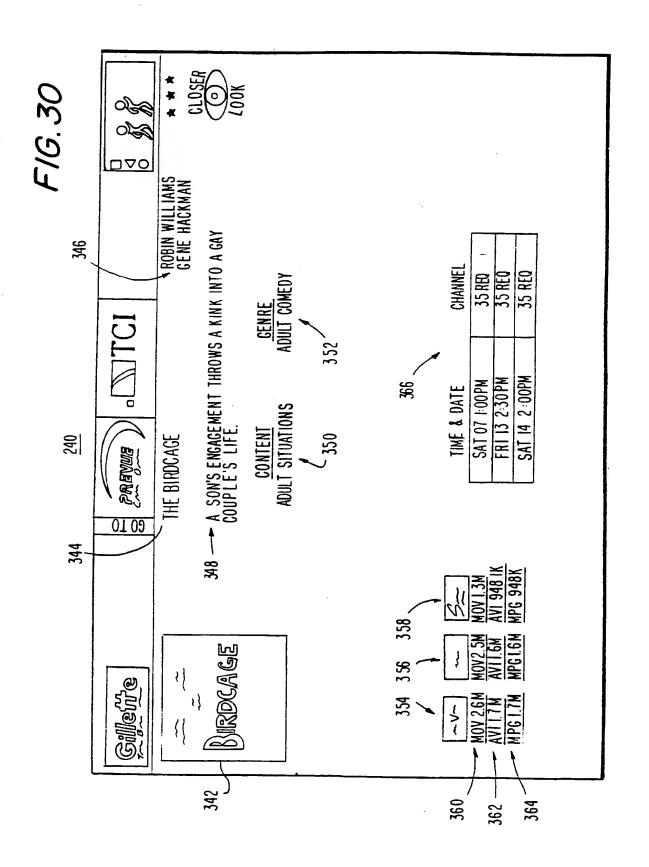
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328	07 09	TIME & DATE	1:30 PM	2:00PM	2:50 PM	3:00PM	3:30 PM	4:00PM	4:30PM	5:00 PM	5:30PM	6:00 PM	8:10 PM	9:00 PM	10:15 P.M		A LOVA	
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LIVE SPORTS EVENTS THIS MONTH ON PAY-PER-VIEW 332

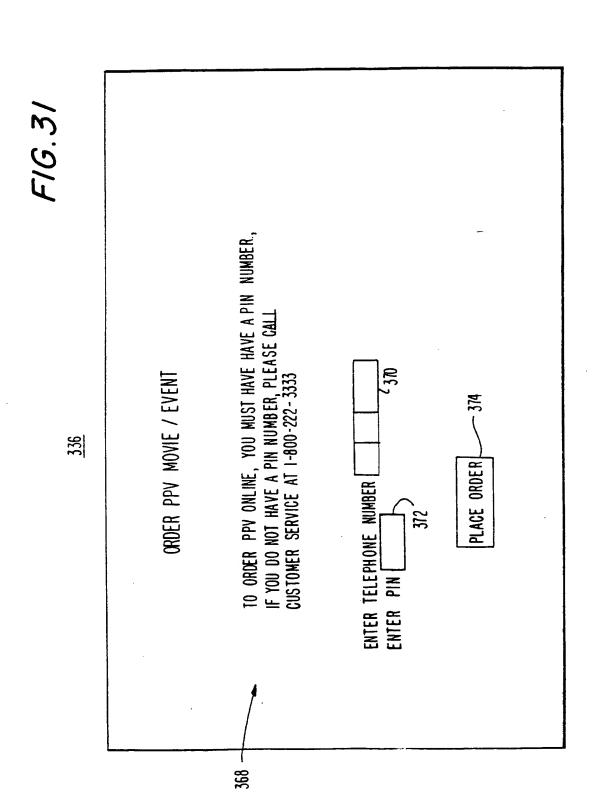
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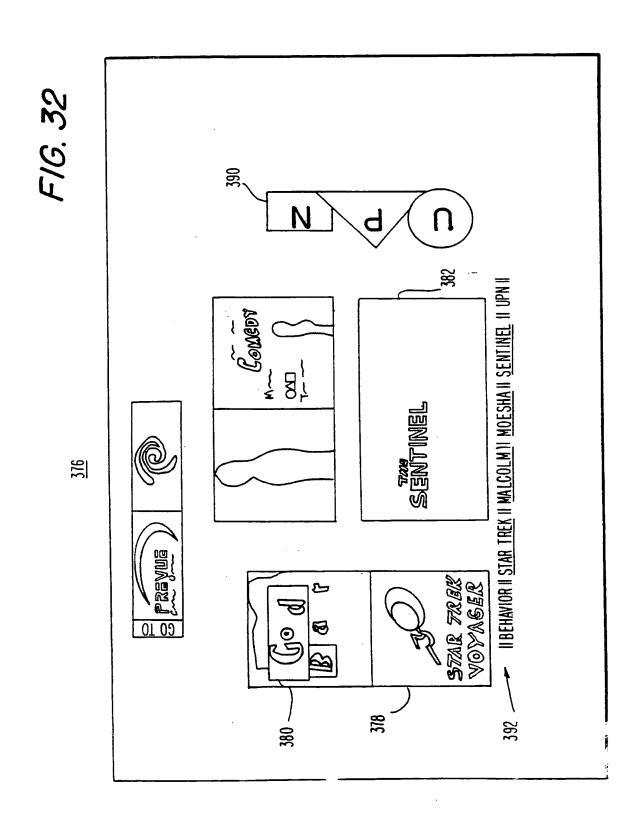
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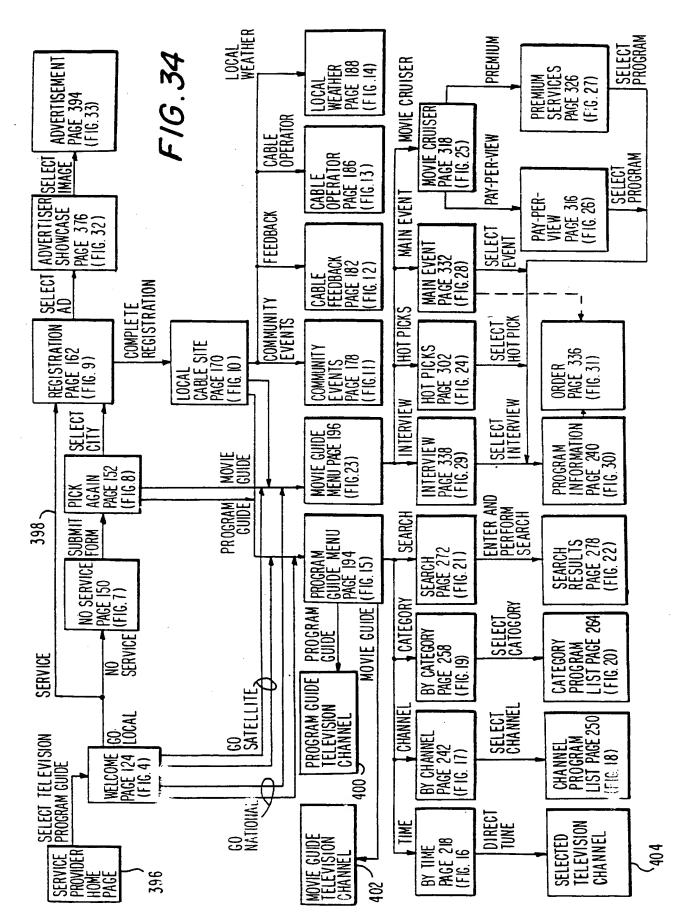
31 / 34



32/34



KIMBERLY ELISE AS CANDANCE BLAKE, KEN EARL AS CAPTAIN TAGGERT, MICHEL KOPSA AS DIRK LARSON, KIRK B.R. WOLLER AS ALEX TENSION RUNS HIGH AS ELLISON Serial Bomber who is targe! American churches. THIS WEEK'S EPISODE UPN - SENTINEL - TS211 CUEST STARRING: RUGGED POLICE DETECTIVE JAMES ELLISON(RICHARD BURGI) AND GOOD-NATURED ANTHROPOLOGIST 394 PROGRAM OVERVIEW: CLICK FOR VIDEO



INTERNATIONAL SEARCH REPORT

Inte onal Application No PCT/US 97/22753

A. CLASSI IPC 6	FICATION OF SUBJECT MATTER H04N5/445		
		fination and IRC	
	o International Patent Classification(IPC) or to both national classification(IPC) or	ication and IPC	
	ocumentation searched (classification system followed by classification	ation sympols)	
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Documentat	tion searched other than minimum documentation to the extent that	t such documents are included in the fields sea	arched
Electronic a	ata base consulted during the international search (name of data	base and, where practical, search terms used)	
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C DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the r	relevant passages	Relevant to claim No.
Α	WO 96 27989 A (MULTIMEDIA SYSTE	MS CORP) 12	1-3,
•	September 1996	14 15	40-43,80
	see page 7, line 12 - page 11, figures 1-5	line 15;	
	see page 23, line 7 - page 26,	line 27;	
	claims 1-3; figure 11		
Α	WO 96 38962 A (SIEMENS AG :STEI	N KARL	1-3,
	ULRICH (DE); HUSSMANN HEINRICH		41-43
	THEIME) 5 December 1996 see page 14, line 24 - page 17,	line 25.	
	figures 6-8	1111e 25,	
		,	
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X Funt	her documents are listed in the continuation of box C.	X Patent family members are listed	in annex.
* Special ca	stegories of cited documents :	"T" later document published after the inte	rnational filing date
	ent defining the general state of the an wnich is not dered to be of particular relevance	or priority date and not in conflict with cited to understand the principle or th	the application but
1	document but published on or after the international	invention "X" document of particular relevance; the	
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citatio	n or other special reason (as specified)	"Y" document of particular relevance; the cannot be considered to involve an in	iventive step when the
other	ent referring to an oral disclosure, use, exhibition or means	document is combined with one or m ments, such combina: a being obvio , in the art.	
"P" docume	ent published prior to the international filing date but nan the priority date claimed	"8" document member of the same patent	family
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2	8 April 1998	14/05/1998	
Name and r	mailing address of the ISA	Authorized officer	
	European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel (-21-70) 340-2040 Tv. 21-551-000 R		
ľ	Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Fuchs, P	

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INTERNATIONAL SEARCH REPORT

Information on patent family members

Int tional Application No PCT/US 97/22753

Patent document cited in search repor	t	Publication date		Patent family member(s)	Publication date		
WO 9627989	A	12-09-1996	US AU CA EP	5612730 A 5177696 A 2214650 A 0813794 A	18-03-1997 23-09-1996 12-09-1996 29-12-1997		
WO 9638962	Α	05-12-1996	EP	0830776 A	25-03-1998		